

## ABSTRACT

A model for determining the type of soil, the water content of a soil, and the soil properties, and a soil measurement data storage portion (60) to store therein measurement data necessary to carry out the model and correlated with specific measurement conditions are provided. The water content is measured by a water content measuring portion (57) on the basis of the measurement data fed from a soil sensor (S). The type of soil is determined by a feature extracting portion (56) and a type-of-soil determining portion (58), and the determined type of soil is sent to a determining portion (59). The determining portion (59) determines corresponding conditions and a model according to the type of soil and water content of the measured place received and sets them in a predetermined processing portion. The soil sensor feeds measurement data meeting the measurement conditions to a measurement information processing portion (55), and the processing portion (55) determines the soil properties according to the determined model.